### Remarks/Arguments

Claims 1 - 4, 7, 8, 15 - 17 and 20 have been previously canceled. Claims 21 to 39 have been previously presented. Claims 5, 6, 9 - 14, 18 and 19 have been previously withdrawn as a result of a restriction requirement. Claims 21, 25, 27, 34 and 37 are currently amended. Claims 29 - 31 are currently canceled. Claim 40 is new. A three month extension of time accompanies this document.

The specification has been amended to include the ATCC Virginia address. Support may be found on page 3, paragraph [9]. Claims 21 and 37 have been amended to refer to "the amino acid sequence 2 to 384" and the amino acid sequence 1 to 384". Support may be found in paragraph [015] bridging pages 4 and 5 and paragraph [126] bridging pages 36 and 37. Claims 21 and 37 parts (d) and (e) have been amended to require at least 97% sequence identity to SEQ ID NO:13 or SEQ ID NO: 12. Support may be found in paragraph [113] on page 31. Claims 25 and 27 have been amended to correct dependency due to deletion of original parts (a) and (b) of claim 21. Claim 34 has been amended to specify an "isolated" host cell. Support may be found in paragraphs [145] through [158] on pages 43 - 48 of the specification. Support for new claim 40 may be found in claims 21 and 37 original parts (f) and (e), respectfully.

#### Information Disclosure Statement

Reference "AO" was included in the IDS filed on 10/15/02 as it was discovered from a BLAST Search against the RET16.1 sequence. An English translation of the abstract is being provided to the Examiner along with this response.

# Rejections under 35 U.S.C. § 112, second paragraph

Claims 21-35 and 37-39 have been rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As requested by the Examiner, claims 21 and 37 have been amended to better clarify the claimed invention. The term "corresponding to " has been deleted from original parts (c) and (d) of claim 21 and parts (b) and (c) of claim 37. Amended parts of claims 21 and 37 now read to "an isolated

polynucleotide encoding the amino acid sequence 2 to 384 of SEQ ID NO:13"; and to "an isolated polynucleotide encoding the amino acid-sequence 1 to 384 of SEQ ID NO:13". The phrases "minus the start codon" and "including the start condon" have been deleted in both claim 21 and 37 to remove any confusion that the amino acid sequence is different from that stated. Applicants believe that the above amended claims clearly define the amino acid sequences encoded by the claimed polynucleotides and request that this rejection be withdrawn.

# Rejections under 35 U.S.C. § 112, first paragraph

The specification and claims 21-36 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to provide an enabling disclosure for the claimed invention.

The cDNA required to practice the claimed invention is readily available to the public by a deposit made under the terms of the Budapest Treaty. Applicant's representative hereby gives the following assurance by signature below:

Bristol-Myers Squibb Company, an assignee of the present application, has deposited biological material under the terms of the Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent Procedure with the following International Depository Authority: American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, Virginia 20110-2209. The deposit comprise the cDNA clone of the RET16.2 splice variant of the present invention. The deposit was made on March 7, 2002, and given ATCC Accession Number PTA-3161. In accordance with MPEP 2410.01 and 37 C.F.R. § 1.808, assurance is hereby given that all restrictions on the availability to the public of ATCC Accession Number PTA-3161 for the RET16.2 splice variant gene will be irrevocably removed upon the grant of a patent based on the captioned application, except as permitted under 37 C.F.R. § 1.808(b).

Applicant's representative also hereby gives the following additional assurance by signature below:

In accordance with 37 C.F.R. § 1.805 to § 1.807, assurance is hereby given that the viability of the deposit for RET16.2 splice variant gene, made on March 7, 2002, and given ATCC Accession Number PTA-3161, will be maintained during the pendency of the captioned application for a duration of at least 30 years or at least five years after the most recent request for the furnishing of a

sample of the deposit is received by the ATCC, or whichever is longer; and that the deposit will be replaced if it should ever become inviable.

The specification refers to the Deposit of Biological Material on page 3, paragraph [9] and page 86, paragraph [273]. The ATCC deposit address cited on page 3 is the current Virginia address. The ATCC Virginia address has been added to paragraph [273] as amended above.

As stated above, the biological material disclosed in the specification is readily available to the public as detailed in 37 C.F.R. § 1.801 to § 1.809 thereby providing an enabling disclosure for the claimed invention. Applicant's request that the Examiner withdraw this rejection.

Claims 21-39 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the rejection states that the specification and claims do not adequately describe the elements essential to the genera comprising the claimed sequence variants nor do they describe the genus comprising a cell signaling polypeptide involved in a cell signaling cascade or ubiquitin conjugating enzyme or fragment thereof.

The genera has been limited to specifically defined species within the specification including the nucleic acid sequence of ATCC No: PTA-3161, the polynucleotide encoding the amino acid sequence 1 to 384 of SEQ ID NO:13, the polynucleotide encoding the amino acid sequence 2 to 384 of SEQ ID NO:13, a polynucleotide having a sequence at least 97% identical to SEQ ID NO: 12, a polynucleotide encoding a cell signaling polypeptide involved in the cell signaling cascade having at least 97% sequence identity with SEQ ID NO:13 and a fully complementary polynucleotide of any of the above. One skilled in the art would be able to easily identify the specific species now claimed by reviewing the sequences identified in Example 2 and described in Figures 16 and 18 and understand that the claimed sequences are involved in a cell signaling cascade by reviewing the experiments described in Examples 5 and 6 with data presented in Figures 8 and 9, respectively. Additionally, one skilled in the art would understand that the claimed sequences contain the U box domain as described in Figure 21 and paragraphs [108] through [111] of the specification. Further, one skilled in the art would know that the U box domain-containing proteins mediate ubiquitination, thereby characterizing the claimed polypeptide sequences as a ubiquitin ligase.

Applicant's request that this rejection be withdrawn.

# Rejection under 35 U.S.C. § 102

Claims 21-27 and 29-39 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Tang et al. Tang et al teaches a polynucleotide sequence encoding a polypeptide with an additional 92 amino acids between amino acid number 225 and 226 of the claimed polypeptide sequence. The claims have been amended to limit the claimed species to the nucleic acid sequence of ATCC No: PTA-3161, the polynucleotide encoding the amino acid sequence 1 to 384 of SEQ ID NO:13, the polynucleotide encoding the amino acid sequence 2 to 384 of SEQ ID NO:13, a polynucleotide having a sequence at least 97% identical to SEQ ID NO: 12, a polynucleotide encoding a cell signaling polypeptide involved in the cell signaling cascade having at least 97% sequence identity with SEQ ID NO:13, and a fully complementary polynucleotide of any of the above. The polynucleotide disclosed by Tang et al does not anticipate the claimed species of this application.

Applicant's request that this rejection be withdrawn.

Claims 21, 30 and 37 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Birin et al. Claim 30 has been canceled thereby rendering this rejection moot. Birin et al teaches a polynucleotide sequence encoding polypeptide fragments of SEQ ID NO:13 sharing at least 68.2% sequence identity with SEQ ID NO:12. The claims have been amended to limit the claimed species to the nucleic acid sequence of ATCC No: PTA-3161, the polynucleotide encoding the amino acid sequence 1 to 384 of SEQ ID NO:13, the polynucleotide encoding the amino acid sequence 2 to 384 of SEQ ID NO:13, a polynucleotide having a sequence at least 97% identical to SEQ ID NO: 12, and a fully complementary polynucleotide of any of the above. The polypeptide fragments encoded by the polynucleotide sequence disclosed by Birin et al do not anticipate the currently claimed polynucleotide sequences or the amino acid sequences encoded thereby.

Applicant's request that this rejection be withdrawn.

Applicants believe that all of the Examiners rejections have been overcome and that all of the pending claims before the Examiner are in condition for allowance. An early Office Action to that effect is, therefore, earnestly solicited.

Respectfully submitted,

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Date: August 24, 2005



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### CN1300734A 20010627

Title: (ENG) Polypeptide-beta-transducin 41 and polynucleotide for coding this polypeptide

**Abstract:** A new polypeptide-beta-transducin 41, the polynucleotide for coding it, the process for preparing said polypeptide by DNA recombination, the application of said polypeptide in curing diseases (cancer, HIV infection, etc), the antagonist of said polypeptide and its medical function, and the application of said polynucleotide are disclosed.

Application Number: CN 99124285 A
Application (Filing) Date: 19991221
Priority Data: CN 99124285 19991221 A X;
Inventor(s): MAO YUMIN CN; XIE YI CN

Assignee/Applicant/Grantee: UNIV FUDAN CN

IPC (International Class): C07K01400; C07K014435; C07K01610; C07K01618; C07H02100; C12N01510;

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Other Abstracts for This Document: CHEMABS136(03)032726J; DERABS C2001-537038



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